HARTENERGY

MIDSTREAM Monitor November 25, 2013 | Volume 31 | Issue 47

DUG East Panel: Midstream Key To Marcellus, Utica Success

The midstream was a big topic of discussion at the recent conference in Pittsburgh.

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR, MIDSTREAMBUSINESS.COM

While the midstream was only focused on during one session at Hart Energy's DUG East conference in Pittsburgh, Pennsylvania November 14 and 15, there was little doubt how truly important the sector is to the success of both the Utica and Marcellus due to the number of times the sector was discussed by presenters during the conference.

"You get to serve everyone when you work in the midstream," Paul Weissgarber, senior vice president, Ohio River Valley, Crosstex Energy, said during the midstream panel. Many presenters noted that although the Marcellus and Utica are prolific now, they won't reach their full potential until a number of midstream projects catch up to production.

One of the biggest trends in the Northeast has been how the region has been becoming more localized in terms of the workforce. Just five years when the first DUG East conference was held many of the attendees were from Texas and Oklahoma, but this year the majority of attendees were from Pennsylvania, Ohio and West Virginia. This was especially impressive since the conference set an attendance record of more than 4,200.

Still Going Strong | MarkWest's Scott Garner noted that the Northeast served as the "genesis" for the company and continues to fuel its strategy moving forward. (Courtesy: Hart Energy)

"This industry is creating a lot of local jobs, not just moving workers from Texas and Oklahoma," Weissgarber said.

Crosstex Energy recently announced it would be merging with Devon Energy's midstream assets to create a new company. Originally Devon planned on spinning these assets off into a separate company complete with an

Continued on **Page 13**

HIGHLIGHTS FROM TODAY'S EDITION

FRANK NIETO
Editor, *Midstream Monitor* & *MidstreamBusiness.com*
fnieto@hartenergy.com

Rejected
There is an extreme lack of volatility for Conway E-P mix prices as rejection has been increasing in the market.
PAGE 3

Delayed Again
TransCanada pushed back the potential start-up date for the Keystone XL as the project remains in regulatory limbo.
PAGE 6

Stepping Up
Odebrecht announced they are considering plans to build a world-scale cracker in WV.
PAGE 6

Revival
Gov. Corbett of Pennsylvania said that the Marcellus and Utica are helping to stimulate the Commonwealth's economy.
PAGE 8

Shale Leading The Way
The shale gale is leading a boom in the transportation industries.
PAGE 12

Reel SIMPLE

When corrosion ... n, choose

DON'T WORRY ABOUT CORROSION AGAIN. EVER.

www.fgspipe.com DELIVERING EXPERIENCE

High Pressure ✓

High Temperature ✓

Corrosion Resistant ✓

Easy to Install ✓

Jointed Line Pipe ✓
Spoolable Line Pipe ✓
Low Op Ex ✓

CALL TODAY!!!

Fiber Glass Systems

NOV Fiber Glass Systems

Email: fgspipe@nov.com

NGL PRICES & FRAC SPREAD | Week in Review

Conway E-P Market Continues To Lack Volatility

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR, MIDSTREAMBUSINESS.COM

The E-P mix continues to struggle at Conway as rejection levels are increasing at a rapid pace in the Midcontinent. Thus there has been very low volatility at the hub and the price of 18 cents per gallon was the lowest at the hub this year. This led to the product being the lone natural gas liquid (NGL) at either Conway or Mont Belvieu to experience a decrease in frac spread margin for the week of November 13 as it fell 14%.

The market for E-P mix at the hub is very small and with the Mont Belvieu market full, there isn't a real outlet as there have been reports that the Cochin Pipeline has curtailed its shipments of E-P mix. When the pipeline began offering service to transport E-P mix from Conway to Sarnia, Canada last year it was a huge relief for the Midcontinent as Conway was inundated with the product. It appears that much of the contracted volumes to be shipped on the system have been transported, which is creating another flooding of E-P mix at Conway.

Although Mont Belvieu ethane and E-P mix prices have been on the low end of the spectrum this year, they have at least been steady with theoretically positive margins due to the Gulf Coast petrochemical end user market. This week ethane prices rose 2% to 25 cents per

CURRENT FRAC SPREAD (CENTS/GAL)

November 25, 2013	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	18.00		24.79	
Shrink	22.74		23.21	
Margin	-4.74	-13.63%	1.59	68.85%
Propane	120.92		118.98	
Shrink	31.42		32.06	
Margin	89.50	1.43%	86.92	0.66%
Normal Butane	143.34		144.20	
Shrink	35.57		36.30	
Margin	107.77	2.10%	107.91	1.80%
Isobutane	146.10		147.70	
Shrink	34.16		34.86	
Margin	111.94	1.19%	112.84	2.40%
Pentane+	201.64		209.50	
Shrink	38.04		38.82	
Margin	163.60	4.27%	170.69	3.22%
NGL $/Bbl	42.45	1.13%	43.71	1.54%
Shrink	12.53		12.79	
Margin	29.92	2.25%	30.92	2.32%
Gas ($/mmBtu)	3.43	-1.44%	3.50	-0.28%
Gross Bbl Margin (in cents/gal)	69.14	2.19%	71.71	2.22%
Gross Bbl Margin (in cents/gal)				
Ethane	0.99	-4.76%	1.36	2.40%
Propane	4.20	0.67%	4.13	0.41%
Normal Butane	1.55	1.20%	1.56	1.26%
Isobutane	0.91	0.56%	0.92	1.75%
Pentane+	2.60	3.14%	2.70	2.56%
Total Barrel Value in $/mmbtu	10.25	0.80%	10.67	1.44%
Margin	6.82	1.96%	7.17	2.30%

NGL PRICES

Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
Nov. 13 - 19, '13	24.79	118.98	144.20	147.70	209.50	$43.71
Nov. 6 - 12, '13	24.21	118.50	142.40	145.16	204.28	$43.04
Oct. 30 - Nov. 5, '13	24.65	116.90	141.60	146.96	207.08	$43.12
Oct. 23 - 29, '13	25.55	115.54	146.32	150.98	207.36	$43.47
October '13	25.45	113.69	147.90	151.30	209.99	$43.50
September '13	24.91	110.95	135.38	136.84	218.42	$42.63
3rd Qtr '13	24.87	102.65	132.06	134.86	215.56	$41.21
2nd Qtr '13	27.12	91.38	124.01	127.46	204.12	$38.82
1st Qtr '13	25.68	86.42	157.72	166.41	222.63	$42.07
4th Qtr '12	26.59	88.74	162.76	181.71	215.67	$42.69
Nov. 14 - 20, '12	27.44	87.82	164.20	179.96	218.40	$42.92
Conway, Group 140	**Eth**	**Pro**	**Norm**	**Iso**	**Pen+**	**NGL Bbl**
Nov. 13 - 19, '13	18.00	120.92	143.34	146.10	201.64	$42.45
Nov. 6 - 12, '13	18.90	120.12	141.64	145.28	195.50	$41.98
Oct. 30 - Nov. 5, '13	19.90	117.16	140.84	142.58	196.02	$41.71
Oct. 23 - 29, '13	20.00	113.54	145.93	151.32	199.78	$42.05
October '13	21.12	110.53	147.71	154.40	201.90	$42.19
September '13	20.59	108.24	132.50	137.44	209.98	$41.14
3rd Qtr '13	20.80	99.22	129.23	142.77	209.94	$40.07
2nd Qtr '13	20.71	85.37	116.50	123.91	204.86	$36.89
1st Qtr '13	23.94	81.81	153.43	160.39	222.63	$41.11
4th Qtr '12	18.45	79.24	164.46	174.39	209.16	$39.94
Nov. 14 - 20, '12	19.16	77.52	158.82	166.48	213.96	$39.67

(Above) Data provided by Bloomberg. Individual product prices in cents per gallon. NGL barrel in $/42 gallons | Source: Frank Nieto

(Left) Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%, Fuel, frac, transport costs not included. Conway gas based on NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel.

Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

Copyright © 2013 HARTENERGY

NGL PRICES & FRAC SPREAD | Week in Review

gallon at the hub, which resulted in a 69% improvement in margin when combined with the decrease in gas prices.

After a two-week price rally caused by a sustained cold front, gas prices dipped 1% at both hubs as temperatures turned mild in much of the country. The Mont Belvieu price was down to $3.50 per million Btu (MMBtu) while the Conway price dropped to $3.43 per MMBtu.

These prices are not that different than what gas has been trading at for much of 2013. According to the Energy Information Administration (EIA), this is because seasonal price variations are disappearing as there is more certainty over supply. In addition,

"Over the past four years, the spread between the natural gas price for delivery in February and for delivery in November has decreased from an average of 65 cents per MMBtu in October 2010 trading to an average of 24 cents in October 2013," EIA said in a research note on November 20.

Propane storage levels are now nearly 6 million barrels (bbl.) below their five-year average as liquefied petroleum gas (LPG) exports have worked off the storage overhang. Somewhat surprisingly, the market was largely flat from last week despite this major positive. This is partially due to the aforementioned mild temperatures that have reduced heating demand, but also a reflection of the market reacting to the downturn in E-P mix prices. It should be noted that the price at both Conway and Mont Belvieu were the highest for the past 18 months.

While West Texas Intermediate (WTI) crude prices fell below $95 per bbl. this week, heavy natural gas liquid (NGL) prices improved as a result of high demand for LPG exports, refining demand and increased fractionation capacity.

KEY NORTH AMERICAN HUB PRICES	
2:30 PM CST / November 21, 2013	
Gas Hub Name	Current Price
Carthage, TX	3.39
Katy Hub, TX	3.42
Waha Hub, TX	3.35
Henry Hub, LA	3.53
Perryville, LA	3.43
Houston Ship Channel	3.40
Agua Dulce, TX	N/A
Opal Hub, Wyo.	3.36
Blance Hub, NM	3.34
Cheyenne Hub, Wyo.	3.34
Chicago Hub	3.56
Ellisburg NE Hub	3.12
New York Hub	3.34
AECO, Alberta	3.21

Source: Bloomberg

RESIN PRICES – MARKET UPDATE – NOVEMBER 22, 2013					
TOTAL OFFERS: 17,435,952 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
LLDPE - Film	5,390,716	0.635	0.77	0.65	0.69
LDPE - Film	3,029,600	0.75	0.82	0.73	0.77
PP Homopolymer - Inj	2,433,736	0.73	0.85	0.73	0.77
PP Copolymer - Inj	1,529,828	0.73	0.825	0.74	0.78
HDPE - Inj	1,250,276	0.71	0.81	0.67	0.71
HMWPE - Film	1,102,300	0.75	0.76	0.7	0.74
HDPE - Blow Mold	1,102,024	0.65	0.76	0.66	0.7
LLDPE - Inj	1,026,368	0.7	0.74	0.675	0.715
LDPE - Inj	571,104	0.755	0.77	0.705	0.745
GPPS	190,000	0.91	0.91	0.87	0.92
HIPS	190,000	1.03	1.03	0.99	1.04

Source: Plastics Exchange – www.theplasticsexchange.com

The theoretical NGL bbl. price rose 1% at Conway to $42.45 per bbl. with a 2% increase in margin to $29.92 per bbl. and the Mont Belvieu price increased 2% to $43.71 per bbl. with a 2% improvement in margin to $30.92 per bbl.

The most profitable NGL to make at both hubs was C_{5+} at $1.64 per gallon at Conway and $1.71 per gallon at Mont Belvieu. This was followed, in order, by isobutane at $1.12 per gallon at Conway and $1.13 per gallon at Mont Belvieu; butane at $1.08 per gallon at both hubs; propane at 90 cents per gallon at Conway and 87 cents per gallon at Mont Belvieu; and ethane at negative 5 cents per gallon at Conway and 2 cents per gallon at Mont Belvieu.

Natural gas storage levels were down 45 billion cubic feet the week of November 15 to 3.789 trillion cubic feet (Tcf) from 3.834 Tcf, according to the most recent EIA data available. This was 2% below the figure of 3.878 Tcf posted last year at the same time and just about even with the five-year average of 3.774 Tcf.

There might be a larger withdrawal of natural gas next week as the National Weather Service is forecasting another cold front for much of the country that will be concentrated along the East Coast and extend into the Midwest, Gulf Coast and Southwest.

Copyright © 2013 HARTENERGY

IPS

Engineering / EPC

A PLH GROUP COMPANY

Engineering

Procurement

Project Management

Construction

Right-of-Way Services

Surveying

Mapping

Facilities Design

Tulsa, OK
7030 South Yale Avenue
Suite 800
Tulsa, OK 74136
918.746.4440 main

Canonsburg, PA
501 Corporate Drive
Suite 120
Canonsburg, PA 15317
724.749.4400 main

www.ips-epc.com

www.plhgroupinc.com

Odebrecht Announces Plans For Ascent Petchem Complex In WV

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR, MIDSTREAMBUSINESS.COM

There have been rumors that Shell will not be moving ahead with its proposed world-scale ethane cracker in Pennsylvania, but other companies continue to show an interest in developing a similar-sized facility in the Northeast.

On November 14, Odebrecht, a Brazilian conglomerate with petrochemicals, construction and engineering operations, announced it is exploring the possibility of building the Appalachian Shale Cracker Enterprise (Ascent) petrochemical complex in Wood County, West Virginia. The proposed complex would include an ethane cracker, three polyethylene plants, and associated infrastructure for water treatment and energy co-generation. Odebrecht's Braskem subsidiary will be in charge of the complex's petrochemical activities and polyethylene commercialization efforts while Odebrecht will lead the financing efforts and water and electric utilities.

According to West Virginia Gov. Earl Ray Tomblin, the company has a purchase option in place for the proposed site, but financing and regulatory approvals are still necessary to proceed. "There are a lot of hurdles we still have to jump through, but I feel very confident we have developed the relationship with Odebrecht that is a good one, and I think they can respond to it. We have the resources and the business atmosphere that they're looking for," Tomblin said.

"As the United States' leader in polyethylene production and with a significant footprint already in the region, we are excited about [this] announcement. Should Ascent materialize we look forward to serving our clients in the polyethylene market," Braskem America's Chief Executive Fernando Musa said.

It is important to note that Shell officials contend that they are still exploring the possibility of building a world-scale cracker at an estimated $2.5 billion outside the Monaca, Pennsylvania site of Horsehead Corp.'s zinc plant, where it hold a land option to build the facility. The company is still accepting bids for volume commitments to the proposed cracker.

Shell spokeswoman Kimberly Wendon told the Associated Press in an email that "our evaluation of the site continues" and that the process "typically takes several years to complete."

In addition to Shell, Appalachian Resins has been exploring the possibility of developing smaller regionally-sized crackers in the Northeast. Appalachian Resins' Chief Executive Jim Cutler told Midstream Monitor that this announcement does not inhibit his company's plans.

"Regional natural gas production can easily support multiple ethane-based crackers and the Northeast polyethylene market can easily support several polyethylene production facilities," he said.

According to Cutler, both world-scale ethylene plants and smaller regionally sized facilities have exactly the same yield structure. More important, according to Cutler, is the fact that smaller ethylene crackers with a capacity of approximately 500 million cubic feet per day can be constructed at existing underutilized production facilities, resulting in off-site cost savings.

Cutler indicated that Appalachian Resins is targeting a 2016 start-up date. This date reflects the recognition of long lead time items and a shortage of skilled labor. He said that Appalachian Resins is not planning to initially operate its ethylene plant as a master limited partnership (MLP), but that after start-up, the ethylene plant could possibly be operated as an MLP.

Keystone XL Pipeline Start Date Postponed By TransCanada

BLOOMBERG

TransCanada Corp. (TRP) pushed the start date for its $5.4 billion Keystone XL oil pipeline into 2016, the second delay this year as the company awaits U.S. approval for the project.

The pipeline, which would stretch from Alberta's oil sands to the U.S. Gulf Coast, can begin operating no sooner than two years after it gets a U.S. presidential permit, Chief Executive Russ Girling said in an interview November 20. With the permit expected early next year, "there's no way we can get it done faster than two years," Girling said.

The company previously suggested it may be able to build the northern leg of the project within two years. TransCanada split its original Keystone XL project after President Barack Obama rejected a prior route last year because of fears its path through Nebraska would threaten ecologically sensitive lands. TransCanada is currently building the southern leg, which doesn't require a permit because it doesn't cross the U.S. border, and has revised the route for the other portion.

The project has galvanized environmental groups that argue it will increase greenhouse-gas emissions by encouraging development of Alberta's oil sands, which require more energy than most

 Copyright © 2013 HARTENERGY

conventional crude production. Supporters say the oil sands will be developed with or without Keystone XL and the line's construction will create jobs.

The U.S. State Department is overseeing an environmental review to estimate the extent Keystone XL would contribute to global warming. A draft analysis released in March found the project wouldn't have a big impact on greenhouse-gas emissions because companies can find other ways to transport the bitumen to market, such as by train.

Costs for the line will continue to rise as delays push the start date back, TransCanada Chief Financial Officer Don Marchand said November 19 in Toronto. The pipeline's $5.4 billion cost includes extensions to reach the U.S. oil storage hub in Cushing, Oklahoma, and to gather supplies from the Bakken formation in Montana and North Dakota, James Millar, a company spokesman, said in an e-mail.

The Great Unknown

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR, MIDSTREAMBUSINESS.COM

The Utica shale might be on the fast track to development compared to other North American shale plays in the past, but the lack of available data and midstream infrastructure has some people raising concerns about the play's viability.

According to Hsulin Peng, senior analyst of exploration and production at Robert W. Baird & Co., and Christopher Simon, managing director, co-head of acquisitions and divestitures (A&D) at Raymond James & Associates, these concerns are overblown. While speaking during Hart Energy's DUG East conference in Pittsburgh, Pennsylvania, Simon noted that the Utica is in its early stages and thus far there have been impressive rates in the rich window of the play.

However, many shale plays follow similar phases along with improvements learned from each previous play including improvements in technology. These phases follow a trend in which producers find the most economically viable and productive portions and contract drilling to the newfound core. "These production boundaries are done through acreage pooling and trading, HBP (held by production) drilling, A&D transactions and eventually full development PADD drilling," he said.

These phases and faster developments were compared through the longer development time for the Barnett shale, which was the first shale to be developed. The play began development in early 2000

Overstated | Concerns over the lack of midstream infrastructure in the Utica shale are overblown, according to Baird's Hsulin Peng. (Courtesy: Hart Energy)

before peaking in 2008 and has thus far resulted in more than 14,000 wells being drilled to date.

The Bakken shale's development was a little slower than the Barnett as 6,700 wells have been drilled throughout 11 years with the play peaking last year. By comparison, the Eagle Ford has already reached more than 5,400 wells in seven years and is still peaking.

According to Simon, the Utica shale is on a similar pace as the Eagle Ford as it has a similar trajectory with 292 wells were in production in 2012, which is expected to grow to nearly 400 wells in 2013. Additionally, the rig count has more than doubled in 2013 to 37 rigs from 14 rigs in 2012.

This growth has been despite the State of Ohio, which is where most of the play is located, only required producers to submit production data on an annual basis. This is much different than other states, which require data be submitted on a monthly basis. The good news is that Ohio has responded to this criticism by now requiring producers to submit their data on a quarterly basis beginning in the third quarter of this year.

"This will really help accelerate the play's development as you will be able to determine where the strong, productive areas are," he said.

Confusion over the Utica is best typified by a recent survey from Robert W. Baird, which found that the play's well results and infrastructure was viewed as both one of the most positive and negative catalysts in the energy industry.

Peng said that the midstream infrastructure is expected to remain fluid as the sector plays catch-up. This is similar to how midstream build out has occurred in other shale plays, especially the Marcellus, which has been built from the ground up.

Copyright © 2013 HARTENERGY

"When there is money to be made, companies will show up, similar to the Marcellus shale. We think investor fear over the lack of midstream infrastructure is overstated, at least in the medium term. We are in the very early days of the play and there is much more to come," she said.

Pennsylvania's Corbett: Marcellus, Utica Leads To Job Surge

BY **VERONICA BUCIO** | HART ENERGY

For Pennsylvania's governor, Tom Corbett, the benefits of the oil and gas boom in his state can be summed up by a bumper sticker he spied on a pickup truck—American energy, American jobs.' Except, he thinks it should read 'Pennsylvania energy, Pennsylvania jobs.'

"I want to be clear about something because there seems to be a question mark about it—More than 220,000 jobs have either been created or made more prosperous or more secure by the vast wealth that is being tapped by our own Marcellus and, now, Utica shale plays," Corbett said.

Corbett spoke to attendees of the DUG East exhibition and conference in Pittsburgh last week, but he was actually addressing the oil and gas industry's opponents, those he called "economic change deniers."

"The industry has, to a vast degree, been environmentally responsible," he said, calling it one of the "inconvenient truths" opponents have had to face.

Corbett challenged drilling opponents and jobs skeptics to visit Pennsylvania for themselves and see the industry's help in creating jobs.

"Visit Williamsport, the home of the Little League World Series, and see the crowded restaurants, the full hotels, and the additional hotels being built, and the stores that sell everything from equipment used on a rig to hats and boots, and then ask the people in those stores if they're doing this kind of business without the drilling industry," he said.

Citing the $400 million in impact fees assessed on unconventional wells in the Marcellus during the past two years as a result of statewide legislation called Act 13 and how the funds benefit local economies, the governor said.

"If those who question the positive impact you have had from this industry on our communities just took the time to personally visit

Rebirth | Shale development are an employment and economic boom to Pennsylvania, according to the state's Governor Tom Corbett. (Courtesy: Hart Energy)

these areas. They would know what we have learned here in Pennsylvania. Pennsylvania is an energy industry," he said.

Corbett indirectly attributed some of the jobs creation to Act 13, which was enacted in early 2012.

"We knew that our energy producers would compete, not only with other states, but now with other nations. So we avoided a burdensome and job-killing system of taxation in favor of allowing the industry to flourish, to grow and to create the jobs and the related business expansion that generates real prosperity and real revenue for all peoples," he said.

Corbett reminded the oil and gas audience that history is repeating itself in his state by recalling that the nation's first commercial oil rig, the Drake Well, was drilled in Pennsylvania a little over 150 years ago. With hydraulic fracturing and horizontal drilling, he said, "Pennsylvania is once again a major energy producing state, with the world's most famous natural gas reserve resting beneath us."

And this time around, he said, the industry has a duty to the environment.

"Under Act 13, we passed the most comprehensive and effective system of guidelines and regulations of any drilling state in the nation," he said. "Our system protects the various and many, many streams and aquifers that we have, and when necessary, and very rarely has it been necessary, we have imposed fines and taken action to protect the environment. The drilling industry has complied very well with these regulations."

 Copyright © 2013 HARTENERGY

DOE Authorizes Additional Volume At Freeport To Export LNG

The U.S. Department of Energy (DOE) conditionally authorized Freeport LNG Expansion LPand FLNG Liquefaction, LLC to export additional volumes of domestically produced liquefied natural gas (LNG) to countries that do not have a Free Trade Agreement (FTA) with the United States from the Freeport LNG Terminal in Quintana Island, Texas.

Freeport previously received approval to export 1.4 billion cubic feet (Bcf) of LNGs per day from this facility to non-FTA countries on May 17, 2013. The Freeport Expansion application was next in the order of precedence after the Energy Department conditionally authorized Dominion's proposed Cove Point facility in September 2013. Subject to environmental review and final regulatory approval, the facility is conditionally authorized to export an additional 0.4 Bcf per day, for a total rate of up to 1.8 Bcf per day, for a period of 20 years.

The DOE conducted an extensive, careful review of the application to export LNG from the Freeport LNG Terminal. Among other factors, the department considered the economic, energy security, and environmental impacts — as well as public comments for and against the application and nearly 200,000 public comments related to the associated analysis of the cumulative impacts of increased LNG exports — and determined that additional volume of exports from the terminal at a rate of up to 0.4 Bcf per day for a period of 20 years was not inconsistent with the public interest.

Enterprise's Eighth NGL Fractionator At Mont Belvieu Complex Begins Operations

Enterprise Products Partners LP announced that the eighth natural gas liquids (NGL) fractionator at the partnership's Mont Belvieu, Texas complex is now operational. The new unit, which has the capability to fractionate up to 85,000 barrels (bbl.) per day of NGLs, increases total NGL fractionation capacity at Enterprise's Mont Belvieu facility to approximately 655,000 bbl. per day.

The partnership's eighth fractionator will accommodate increasing NGL production from domestic shale plays, including the Eagle Ford in South Texas, and other basins in the Rocky Mountain and Midcontinent regions.

Fractionators seven and eight were constructed as part of a joint venture with Western Gas Partners LP, an affiliate of Anadarko Petroleum Corp. Enterprise operates the two new units and owns a 75% equity interest in the joint venture, with Western Gas Partners owning the remaining 25% interest.

ONEOK Partners To Invest Additional $650-780 Million In Williston Basin

Among ONEOK Partners' latest planned projects is a new 200 million cubic feet per day (MMcf) per day natural gas processing facility — the Lonesome Creek plant — and related infrastructure in McKenzie County, North Dakota. The Lonesome Creek plant is the partnership's sixth new natural gas processing plant built in the region since 2010 and seventh plant overall. The new Lonesome Creek plant is expected to cost between y $320 million and $390 million. When complete, the new plant will be the partnership's largest natural gas processing plant in North Dakota and will increase the partnership's total natural gas processing capacity in the state to approximately 800 MMcf per day.

In addition to the Lonesome Creek plant the company expects to invest approximately $230 million to $290 million for related expansions and upgrades to its existing natural gas gathering and compression infrastructure. The Lonesome Creek plant and related infrastructure are expected to be completed by the end of 2015 and will be supported by acreage dedications from producers.

To accommodate NGL volumes produced from the new Lonesome Creek plant, ONEOK Partners expects to invest an additional $100 million to increase capacity on its Bakken NGL Pipeline, an approximately 600-mile pipeline completed last April that transports unfractionated NGLs produced in the Williston Basin to the partnership's 50%-owned Overland Pass Pipeline.

This second expansion of the Bakken NGL Pipeline, which is expected to be complete during the first-half of 2016, will increase its capacity to 160,000 barrels (bbl.) per day to accommodate NGL volumes from the new Lonesome Creek plant.

The Bakken NGL Pipeline is currently being expanded to 135,000 bbl. per day from an original capacity of 60,000 bbl. per day. This

Copyright © 2013 HARTENERGY

previously announced initial expansion is expected to be complete in the third quarter 2014.

Raymond James: Oil's Downfall May Be Coming With Prices Tumbling

BY **DARREN BARBEE** | HART ENERGY

Global oil demand is sputtering and West Texas Intermediate (WTI) prices may plummet to $70 per barrel (bbl.) by 2015, said James Rollyson, senior vice president at Raymond James & Associates.

Such price expectations are well below consensus estimates, but Rollyson said the same oversupply that has depressed gas prices is now at work against oil. The shale boom has been too much of a good thing.

"Our view on oil is that basically the game has changed," said Rollyson, who spoke at an Independent Petroleum Association of America-Texas Independent Producers & Royalty Owners Association lunch in Houston.

U.S. oil supply is up and those bullish on oil have to count on additional disruptions in the Middle East and elsewhere to keep oil prices artificially high, he said. Despite that, OPEC's excess capacity is near a 20-year high despite 3 million bbl. of oil per day falling offline since 2010.

"That scares some people," Rollyson said. "Is Saudi going to continue taking oil off the market, and if so, at what price do they do that? If not, then prices probably come down."

North America is one of the chief culprits as its efficiency continues to produce more and more oil. The crude supply will grow by 1.5 million bbl. per day in the next several years.

Rollyson said oil has been oversupplied despite disruptions in the Middle East.

In 2014, assuming no incremental disruptions, oil production could add another couple of million bbl. a day, he said.

"That's 750 million bbl. That's a lot of oil to find a home for," he said. The market needs to be brought back into balance. Saudi needs to cut production and the United States needs to slow down."

Lower prices will also slow U.S. drillers and spur the global economy.

Raymond James research suggests that 2014 oil prices will be as much as 15% below consensus, with $83 WTI and $95 Brent. In 2015, WTI prices fall to $70 and Brent to $85.

"If we were in a normal economic environment where oil demand was growing at a 1.2 to 1.5 million bbl. a day, which is what we saw last decade before the economic meltdown, this probably wouldn't be a big deal," he said.

However, global demand is growing about half as fast as supply, at 700,000 to 900,000 bbl. of oil per day.

Downturn | As supply grows, oil prices may fall to $70 per barrel.

And domestically, the bottleneck at Cushing may have solved one problem and created another. The added takeaway capacity from the mid-continent to the Gulf Coast may result in a bottleneck there.

With producers enjoying Louisiana light sweet crude prices, "that may about to change," he said.

Rollyson is more upbeat on natural gas, though he doesn't expect the price to increase much.

Coal to-gas switching helped to prop up gas in 2012. However, coal's market share went from a low of about 32% last spring to 40% this year. That's the bad news if you're a gas producer.

"The good news is that over the next five years (coal fired generation) is going to probably work its way back to the low 30% range or high 20% range because of regulation," he said.

And petrochemical, fertilizer and service companies will continue to benefit.

"Lower oil prices are bullish for gas," he said.

Crestwood Midstream Partners Completes Acquisition Of Arrow Midstream Gathering System

Crestwood Midstream Partners LP and Crestwood Equity Partners LP announced that Crestwood has completed the previously announced acquisition of Arrow Midstream Holdings LLC, a privately-held midstream company, for approximately $750 million.

Copyright © 2013 HARTENERGY

Arrow owns and operates approximately 460 miles of gathering pipeline composed of 150 miles of crude oil gathering pipeline, 160 miles of natural gas gathering pipeline and 150 miles of water gathering lines. Current volumes on the system are approximately 50,000 barrels (bbl.) per day of crude oil, 15 million cubic feet (MMcf) per day of rich natural gas and 8,500 bbl. per day of produced water. The Arrow gathering systems are anchored by long-term, primarily fee-based gathering contracts and more than 150,000 net acres of dedication from area producers including WPX Energy, QEP Resources and Kodiak Oil & Gas Corp, among others.

Additionally Arrow, currently has nine drilling rigs. The Arrow systems are currently being expanded to increase gathering capacities to 125,000 bbl. per day of crude oil, 100 MMcf per day of natural gas, and 40,000 bbl. per day of produced water. The cost of these expansions will total approximately $80 million during the next 18 to 24 months. Crestwood expects to complete in the fourth quarter 2013 an initial phase of this expansion designed to gather natural gas currently being flared.

The $750 million base purchase price consists of $550 million of cash consideration and $200 million of Crestwood common units issued directly to the seller.

Magellan Midstream Closes Rocky Mountain Pipeline Acquisition

Magellan Midstream Partners LP closed on its previously-announced acquisition of Rocky Mountain pipeline assets from Plains All American Pipeline LP.

The pipeline system includes approximately 550 miles of common carrier pipeline that distributes refined petroleum products in Colorado, South Dakota and Wyoming. The system includes four terminals with nearly 1.7 million barrels of storage.

Magellan funded the $135 million purchase price primarily with proceeds from the partnership's recent debt offering.

Rimrock Midstream Acquires El Dorado Storage Terminal

Rimrock Midstream LLC announced completion of its acquisition of the El Dorado Storage Terminal from a subsidiary of Enbridge Energy Partners LP. Concurrent with the closing of the acquisition, Rimrock established a strategic financing relationship with Energy Capital Partners with the ability to expand the funding up to an aggregate $160 million to support Rimrock's growth initiatives. Rimrock will work closely with Energy Capital Partners to fund Rimrock's strategy of building and acquiring crude oil-related midstream energy assets.

The El Dorado Storage Terminal, located two miles west of El Dorado, Kansas, has been a critical and reliable service provider to the nearby El Dorado refinery since the early 1950's. Rimrock's facility is the termination point for the Osage Pipeline and has a combined nominal storage capacity of 1.15 million barrels. In addition to receiving crude oil, the El Dorado Storage Terminal is an attractive storage and blending location for Kansas crude oil producers, which have experienced significant production growth in recent years.

Spectra Energy Secures Long-Term Contracts For Gulf Market Expansion Project

Spectra Energy Corp and Spectra Energy Partners executed new long-term contracts for 650,000 dekatherms (Dth) per day of natural gas shipments on the Texas Eastern pipeline system to support the growing manufacturing sector and liquefied natural gas (LNG) export industry along the Texas and Louisiana coast.

Customers signing contracts for long-term service include:

- EQT Corp.: 100,000 Dth per day, in-service 2016
- GDF Suez S.A.: 200,000 Dth per day, in-service 2017
- Mitsubishi Corp.: 100,000 Dth per day,in-service 2017
- MMGS, Inc., a subsidiary of Mitsui & Co., Ltd: 100,000 Dth per day, in-service 2017
- Range Resources, Appalachia LLC: 150,000 Dth per day, in-service 2016

Publisher's Note

Due to the Thanksgiving holiday, *Midstream Monitor* will not be published next week. We will resume our normal publishing schedule with the December 9 issue.

Copyright © 2013 HARTENERGY

SNAPSHOT | Industry Insight

Transportation and Logistic Companies Benefit from Shale Boom

BY **CHRISTINA ALTY** | ASSISTANT EDITOR

The shale boom is spreading wide and affecting many companies outside the realm of the obvious. The latest to be proven as reaping rewards from the energy industry is crude and logistic companies. According to a new PricewaterhouseCooper (PwC) U.S. report, *Shale Energy: A potential game changer – Implications for the US transportation & logistics industry* the sectors are growing by leaps and bounds.

"Transportation and logistics companies are experiencing the immediate and dramatic impact of this revolution. They are essential to the movement of people and equipment to the shale fields and the transportation of shale oil and gas from the fields to processing plants," the report said. It touches on rail, trucking, shipping and airlines as the transportation and logistics companies benefiting from shale energy. Conclusions from the report were drawn from data from all domestic shale plays, Jonathan Kletzel, U.S. transportation and logistics leader, PwC told *Midstream Monitor*. The exception to the research information was that was data on airline load trends solely was taken from North Dakota and the Bakken shale..

Railroads

"The shale oil boom is creating significant opportunities for the railroads as a means to transport people, equipment, and oil," the report said. Equipment that can travel by rail includes machinery, pipelines and frac sand. Additionally rail can be used to haul waste material, crude and crude products and more.

While rail is not the cheapest way to ship, it is often more readily available in developing plays. When a new source of oil is found, it can be a lengthy process to get a pipeline constructed so in the interim rail can supplement as a haul away option. Eventually, though, pipelines will be completed and companies will have more options when it comes to shipping. However Kletzel doesn't think that means the end for rails.

"Rail should keep much of its share of energy-related frac sand, pipe and water transport longer-term while pipelines should be expected to take away share in the transportation of energy output from well sites as they get built," he said. "However it is also possible that a change in domestic regulations which would allow the transport of wastewater by barge could take some water volume away from rail."

While pipelines may eventually be the transportation of choice for crude products, Kletzel isn't firm about when it may happen.

All Of The Above! | A PwC report says that energy transportation services are growing as quickly as unconventional hydrocarbon development.

"We have not developed a specific forecast for this," he said. "It will vary by shale play based upon existing pipeline infrastructure, and the various lead times needed for approvals and construction of new pipeline near each formation."

Meantime, the chemical industry is also seeing a surgence in production and is utilizing railroads for some of their transportation needs. The report cited Americanchestry.com as revealing that nearly a quarter of U.S. chemical shipments are transported by rail. New chemical production plants are currently under construction around the U.S. "As these new plants come online, rail carloads of chemical products are expected to increase as well," the report said.

And rail industry leader BNSF Railway is testing natural gas powered locomotives this year which, if successful, would allow the railroads to be more competitive with pipelines.

While the rail industry has a lot of good things going for it, there is the possibility of impending rules and safety changes after several train derailments that happened during the past few months. "They (regulation changes) would likely lead to higher costs in the form of retrofitting tank cars, as well as greater spending on track maintenance and insurance. This will have to be reflected in prices or otherwise it will impact profit growth," according to Kletzel.

READ FULL ARTICLE ONLINE

Copyright © 2013 HARTENERGY

Continued from Page 1

initial public offering (IPO), but elected to work with Crosstex. The deal is expected to close in the first quarter of 2014.

"We're very excited by the potential of these two entities coming together. It gives us a much broader reach by getting us into new areas such as the Cana Woodford shale, the Arkoma Woodford shale. In addition, Devon has an interest in Gulf Coast fractionators, so we have a very large natural gas liquids (NGL) business in South Louisiana and a much larger entity," he said.

This combined entity will have about 6,500 miles of gas gathering and transmission pipelines, 650 miles of NGL transport line, 200 miles of crude transportation pipeline, 13 processing plants with a combined inlet capacity of 3.3 billion cubic feet (Bcf) per day, six fractionation units with a combined capacity of 165,000 barrels (bbl.) per day along with 3 million bbl. of NGL underground storage, 500 bbl. of above ground crude storage, a 110-vehicle trucking fleet capable of transporting 25,000 bbl. per day, and eight brine disposal wells.

Prior to this agreement, Crosstex had been growing both through greenfield projects and acquisitions in the Northeast. The company has been bringing its expertise in condensate handling from South Louisiana to the Northeast.

"We have to send this product to the right markets. Our perspective is we're rapidly overrunning local markets for the condensate and we've been hard at work to put market outlets into place to help producers achieve the highest possible netback for their condensate," he said.

Weissgarber had a similar viewpoint on the local market for NGLs, which he feels need to be moved out of the region. "There is such a huge complex along the Gulf Coast and not enough petrochemical infrastructure is located in the Northeast," he said when asked whether companies should build large-scale crackers in the region or transport them to other areas of the country.

While Crosstex has been involved in the midstream for years, the opportunities that the sector presents, especially in the Northeast, makes it more attractive for other companies to expand their interest. One of these companies is Marathon Petroleum. Marathon has traditionally focused on refining and upstream operations, but the company's MPLX Energy Logistics master limited partnership (MLP) began trading on the New York Stock Exchange in late 2012 and was designed as a vehicle for Marathon to grow in the midstream.

"This is the most change I've seen in oil and gas in my 30-plus years in the industry," George Shaffner, senior vice president, transportation and logistics, Marathon Petroleum, said.

The large size of the Marathon system provides MPLX with a large number of dropdown opportunities and should help the MLP increase its growth. "Almost every asset that Marathon Petroleum owns qualifies for an MLP, other than its Speedway gasoline retail stations," Shaffner said. These include the remaining 44% interest in pipeline assets that MPLX currently holds as well as more than 5,000 miles of crude and products pipelines, 65 light product and 19 asphalt terminals, 268 transport loading racks, more than 140 transport vehicles, more than 1,900 leased or owned rail cars, 15 inland waterway tow boats, 177 owned and 14 leased liquid barges, as well as refinery tank farms and Marathon Petroleum's non-retail marketing business.

Marathon Petroleum is planning to invest $400-500 million in Utica midstream and transportation services, including condensate splitters; new river barges; a new pipeline; repurposing existing pipelines; a truck-to-rail terminal in Wellsville, Ohio; a truck rack in Canton, Ohio; and a crude oil truck fleet.

Much of the early midstream growth in the Northeast was driven by MarkWest Energy Partners LP, which remains the largest midstream company in the region. "The Northeast is the genesis of MarkWest," Scott Garner, the company's vice president, corporate development and joint venture management, said.

MarkWest is working with the Energy & Minerals Group (EMG) to build further develop its Utica system, which currently has 185 million cubic feet (MMcf) per day of gathering pipeline capacity along with 385 MMcf per day of processing capacity. By the end of 2014, the system will have increased processing capacity to nearly 1 Bcf per day and add 138,000 bbl. per day of fractionation capacity.

READ FULL ARTICLE ONLINE

Contact Information:

FRANK NIETO Editor
fnieto@hartenergy.com

Contributing Editors: Richard Mason, Mike Madere, Scott Weeden, Michelle Thompson, Nissa Darbonne, Leslie Haines, Peggy Williams, Susan Klann, Darren Barbee, Paul Hart, Emily Moser, Chris Sheehan, Steve Toon, Velda Addison, Kristie Sotolongo, Rhonda Duey, Caroline Evans, Nicole Johnson, Christina Alty, Larry Prado

ORDER TODAY!
Call: **1-212-608-9078** | Fax: **1-212-608-9357**

HARTENERGY
1616 S. Voss, Suite 1000 • Houston TX 77057-2627 • USA

Copyright 2013. All rights reserved. Reproduction of this newsletter, in whole or in part, without prior written consent of Hart Energy is prohibited. Federal copyright law prohibits unauthorized reproduction by any means and imposes fines up to $100,000 for violations. Permission to photocopy for internal or personal use is granted by Hart Energy provided that the appropriate fee is paid directly to Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. Phone: 978-750-8400; Fax 978-646-8600; E-mail: info@copyright.com.